3 pages by fax to 571.273.9791



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PTOL-413A (07-07)
Approved for use through 09/30/2007. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

## Applicant Initiated Interview Request Form

Application No.: 10/567259 First Named Applicant: YUKAWA ET AL.
Examiner: DOAK Art Unit: 2872 Status of Application: After Final

**Tentative Participants:**
(1) Doug Mueller (2) Examiner Doak
(3) _____ (4) _____

**Proposed Date of Interview:** April 15, 2008 **Proposed Time:** 2 p.m. (AM/PM)

**Type of Interview Requested:**
(1) [X] Telephonic (2) [ ] Personal (3) [ ] Video Conference

**Exhibit To Be Shown or Demonstrated:** [ ] YES [X] NO
**If yes, provide brief description:** _____

## Issues To Be Discussed

| Issues (Rej., Obj., etc) | Claims/ Fig. #s | Prior Art | Discussed | Agreed | Not Agreed |
|---|---|---|---|---|---|
| (1) | | | [ ] | [ ] | [ ] |
| (2) | | | [ ] | [ ] | [ ] |
| (3) | | | [ ] | [ ] | [ ] |
| (4) | | | [ ] | [ ] | [ ] |

[ ] Continuation Sheet Attached

**Brief Description of Arguments to be Presented:**

See attachments

**An interview was conducted on the above-identified application on** _____.
**NOTE: This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).**
**This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.**

Applicant/Applicant's Representative Signature — Examiner/SPE Signature

Douglas P. Mueller
Typed/Printed Name of Applicant or Representative

30,300
Registration Number, if applicable

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All prior art rejections are based on the combination of the admitted prior art and Kashima. Kashima is directed to a light transmissive system, not a retroreflective system. Even assuming that the reduction of interference fringes to which Kashima is directed would have some relevance to the field of retroreflective sheets, the combination of the prior art teachings to reach the random disposition of the spheres in the thickness direction still is not justified.

The claimed invention, and the admitted prior art, are directed to retroreflective sheets. In enclosed lens type retroreflective systems, the glass spheres are surrounded by resin and spaced from a metal reflecting layer by resin, in contrast to an encapsulated lens type retroreflective system in which a reflective mirror is formed on the lower portion of the spheres and an air layer formed between the glass spheres and a covering film. The enclosed lens type system uses a high refractive index for the spheres so that the focal distance from the sphere to the metal reflecting layer can be maintained at a practical level.

In Kashima, the reduction in interference fringes is not provided by the beads distributed through the thickness of the coating layer, but by the beads that protrude from the surface of the coating layer and are arranged in a random two-dimensional pattern at the surface. See Col. 11, lines 5-8 of the reference. There is no discussion of any desired effect from the beads present within the coating layer; these are simply a by-product of the product process that conveniently produces the desired distribution of protruding beads. The protruding beads used by Kashima to reduce interference fringes have no applicability to a retroreflective system, and cannot justify a combination of the reference disclosures.

The differences between the Kashima system and the enclosed lens type retroreflective systems are clarified further by Kashima's requirement that beads and the binder resin have substantially the same refractive index (cols. 12-13 and 21),and that the beads have a small size (col. 11, note that Table 1 and col. 21 show that a 15um bead was too large and showed interference fringes). Thus, Kashima seeks to avoid refraction of the light, which is antithetical to the operation of the enclosed lens type retroreflective sheet.

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Two proposed claim revisions follow. The revisions are shown for claim 1. The remaining claims would be revised accordingly.

Proposed Claim Revision A

This revision clarifies that the present invention is directed to the enclosed lens type retroreflective sheet, which is completely different from Kashima.

[Claim 1]

An enclosed lens type [[A]] retroreflective sheet comprising a surface layer including at least one layer, a focusing layer containing glass spheres, and a metal reflective layer on the back side of the focusing layer,

wherein the glass spheres are disposed at random locations in the thickness direction of the focusing layer, and

the metal reflective layer is formed on the back side of the focusing layer to follow the shape of the glass spheres.

(See paragraph [0073] of the specification and FIGs. 1D to 1F.)

Proposed Claim Revision B

This revision clarifies the properties of different groups of glass spheres in the present invention. Neither the admitted prior art nor Kashima utilizes groups of glass spheres having the indicated properties.

[Claim 1]

An enclosed lens type [[A]] retroreflective sheet comprising a surface layer including at least one layer, a focusing layer containing glass spheres, and a metal reflective layer on the back side of the focusing layer,

wherein the glass spheres are disposed at random locations in the thickness direction of the focusing layer, and

the glass spheres include a first glass sphere group that provides reflective performance at a small observation angle and up to a large incidence angle and a second glass sphere group that provides reflective performance at a larger observation angle and up to a large incidence angle in the same focusing layer,

the focusing layer for the second glass sphere group is made thinner at the glass spheres than a focus formation position for the glass spheres, and

the metal reflective layer is formed on the back side of the focusing layer to follow the shape of the glass spheres.

(See paragraphs [0048], [0050], [0051], [0073], [0074] of the specification of the present application, and FIGs. 1D to 1F.)